



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

17w

Applicant: Arun Somani et al.

Title: REAL TIME MUSIC RECOGNITION AND DISPLAY SYSTEM

Docket No.: 900.190US1

Serial No.: 10/622,083

Filed: July 16, 2003

Due Date: N/A

Examiner: Unknown

Group Art Unit: 2621

**MS Amendment**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

We are transmitting herewith the following attached items (as indicated with an "X"):

☒ Return postcard.

☒ Supplemental Information Disclosure Statement (2 pgs.), Form 1449 (1 pg.), and copies of 12 cited documents.

If not provided for in a separate paper filed herewith, Please consider this a PETITION FOR EXTENSION OF TIME for sufficient number of months to enter these papers and please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

Customer Number 21186

By [Signature]  
Atty: Rodney L. Lacy  
Reg. No. 41,136

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 31st day of October, 2005.

JAMES KANYUSIK  
Name

[Signature]  
Signature

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

(GENERAL)

S/N 10/622,083



PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant:	Arun Somani et al.	Examiner:	Unknown
Serial No.:	10/622,083	Group Art Unit:	2621
Filed:	July 16, 2003	Docket:	900.190US1
Title:	REAL TIME MUSIC RECOGNITION AND DISPLAY SYSTEM		

---

**INFORMATION DISCLOSURE STATEMENT**

MS Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 *et. seq.*, the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicant respectfully requests that this Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicant requests that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicant with the next official communication.

Pursuant to 37 C.F.R. §1.97(b), it is believed that no fee or statement is required with the Information Disclosure Statement. However, if an Office Action on the merits has been mailed, the Commissioner is hereby authorized to charge the required fees to Deposit Account No. 19-0743 in order to have this Information Disclosure Statement considered.

INFORMATION DISCLOSURE STATEMENT

Serial No :10/622,083

Filing Date: July 16, 2003

Title: REAL TIME MUSIC RECOGNITION AND DISPLAY SYSTEM

Page 2

Dkt: 900.190US1

Pursuant to 37 C.F.R. 1.98(a)(2), Applicant believes that copies of cited U.S. Patents and Published Applications are no longer required to be provided to the Office. Notification of this change was provided in the United States Patent and Trademark Office OG Notices dated October 12, 2004. Thus, Applicant has not included a copy of the U.S. Patent cited with this submission. Should the Office require copies to be provided, Applicant respectfully requests that notice of such requirement be directed to Applicant's below-signed representative. Applicant acknowledges the requirement to submit copies of foreign patent documents and non-patent literature in accordance with 37 C.F.R. 1.98(a)(2).

The Examiner is invited to contact the Applicant's Representative at the below-listed telephone number if there are any questions regarding this communication.

Respectfully submitted,

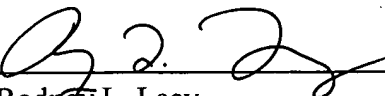
ARUN SOMANI ET AL.

By their Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
P.O. Box 2938  
Minneapolis, MN 55402  
(612) 373-6954

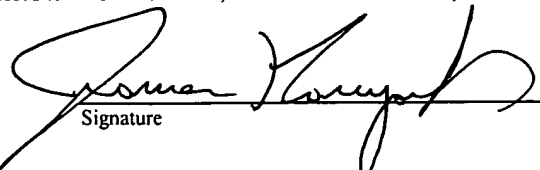
Date October 31, 2005

By

  
Rodney L. Lacy  
Reg. No. 41,136

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 31ST day of October, 2005.

  
Name

  
Signature

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)



Complete if Known

Application Number	10/622,083
Filing Date	July 16, 2003
First Named Inventor	Somani, Arun
Group Art Unit	2621
Examiner Name	Unknown

Sheet 1 of 1

Attorney Docket No: 900.190US1

**US PATENT DOCUMENTS**

Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Filing Date If Appropriate
	US-6,156,964	12/05/2000	Sahai, A., et al.	06/03/1999

**OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		GEÇKINLI, NEZİH C., et al., "Algorithm for Pitch Extraction Using Zero-Crossing Interval Sequence", <u>IEEE Transactions on Acoustics, Speech, and Signal Processing</u> , Vol. ASSP-25, No. 6, (December, 1997),559-564	
		JUSTICE, JAMES H., "Analytic Signal Processing in Music Composition", <u>IEEE Transactions on Acoustics, Speech, and Signal Processing</u> , Vol. ASSP-27, No. 6, (December, 1979),670-684	
		KASHINO, KUNIO , et al., "A Music Scene Analysis System With the MRF-Based Information Integration System", <u>Proceedings of the 13th Annual Conference on Pattern Recognition (ICPR '96)</u> , Vol. 2, (1996),725-729	
		KITAZUME, YOSHIKI, et al., "LSI Implementation of a Pattern Matching Algorithm for Speech Recognition", <u>IEEE Transactions on Acoustics, Speech, and Signal Processing</u> , Vol. ASSP-33, No. 1, (February, 1985),1-4	
		KUHN, WILLIAM B., "A Real-Time Pitch Recognition Algorithm for Music Applications", <u>Computer Music Journal</u> , 14(3), (Fall, 1990),60-71	
		MOORER, JAMES A., "On the Transcription of Musical Sound by Computer", <u>Computer Music Journal</u> , 1(4), (November, 1977),32-38	
		NIEDERJOHN, RUSSELL J., "A Mathematical Formulation and Comparison of Zero-Crossing Analysis Techniques Which Have Been Applied to Automatic Speech Recognition", <u>IEEE Transactions on Acoustics, Speech, and Signal Processing</u> , Vol. ASSP-23, No. 4, (August, 1975),373-380	
		O'SHAUGHNESSY, DOUGLAS , "Speaker Recognition", <u>IEEE ASSP Magazine</u> , 3(4)(Part 1), (October, 1986),4-17	
		PICONE, JOSEPH , "Continuous Speech Recognition Using Hidden Markov Models", <u>IEEE ASSP Magazine</u> , 7(3), (July, 1990),26-41	
		SANO, HAJIME, et al., "A Neural Network Model for Pitch Perception", <u>Computer Music Journal</u> , 13(3), (Fall, 1989),41-48	
		SILVERMAN, HARVEY F., et al., "The Application of Dynamic Programming to Connected Speech Recognition", <u>IEEE ASSP Magazine</u> , 7(3), (July 1990),6-25	
		TUCKER, WARREN H., et al., "A Pitch Estimation Algorithm for Speech and Music", <u>IEEE Transactions on Acoustics, Speech, and Signal Processing</u> , Vol. ASSP-26, No. 6, (December, 1978),597-604	

**EXAMINER****DATE CONSIDERED**

Substitute Disclosure Statement Form (PTO-1449)

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional) <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached